IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

ERFINDERGEMEINSCHAFT UROPEP GbR,	§	
	§	
Plaintiff,	§	
	§	
v.	§	Case No. 2:15-CV-1202-WCB
	§	
ELI LILLY AND COMPANY,	§	
	§	
Defendant.	§	

MEMORANDUM OPINION

This case was tried to a jury during the week of April 17, 2017. The jury returned a verdict finding that defendant Eli Lilly & Co. ("Lilly") had infringed U.S. Patent No. 8,791,124 ("the '124 patent"), which is owned by the plaintiff, Erfindergemeinschaft UroPep GbR ("UroPep"). The jury also found that the '124 patent was not invalid under any of the four theories of invalidity advanced by Lilly—anticipation, obviousness, and failure to satisfy the enablement and written description requirements of 35 U.S.C. § 112, ¶ 1. The jury awarded UroPep $20 million in damages.

In the course of the trial, several legal issues arose on which the Court ruled but did not have an opportunity to provide a comprehensive explanation for its rulings. This opinion addresses several of those issues and provides a more detailed rationale for the Court's rulings than was possible during the trial. In addition, this opinion addresses the issue of prejudgment interest, on which the Court directed the parties to file briefs prior to the Court's entry of final judgment in this matter.

I. Judgment as a Matter of Law on Willfulness

At the close of the evidence, the Court granted Lilly's Rule 50(a) motion for judgment as a matter of law on the issue of willful infringement under 35 U.S.C. § 284. The Court concluded that UroPep had not introduced enough evidence of willfulness to justify submitting that issue to the jury. Dkt. No. 346, at 5-6 (Trial Tr. 1390-91). In addition, the Court stated on the record that even if the jury returned a verdict of willful infringement, the Court would not have enhanced the damages award, based on the evidence presented at trial. Id. at 115 (Trial Tr. 1500).

The Supreme Court has made clear that an award of enhanced damages under section 284 is reserved for "egregious cases." Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1932, 1934 (2016). As the Supreme Court explained in the Halo case, awards of enhanced damages "are not to be meted out in a typical infringement case, but are instead designed as a 'punitive' or 'vindictive' sanction for egregious behavior. The sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." Id. at 1932. Moreover, the party seeking enhanced damages under section 284 has the burden of showing its entitlement to an enhanced award by a preponderance of the evidence. Halo, 136 S. Ct. at 1934; WBIP, LLC v. Kohler Co., 829 F.3d 1317, 1339-40 (Fed. Cir. 2016).[1]

[1] Section 284 refers to "increased damages" and does not use the term "willfulness." Perhaps for that reason, the Supreme Court in Halo discussed the section 284 issue by reference to the showing necessary to warrant enhanced damages rather than by focusing solely on the issue of willfulness. Historically, courts have treated willfulness as a component of the enhanced damages analysis that is for the finder of fact, with the ultimate decision on enhancement reserved for the court. See In re Seagate Tech., LLC, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc), overruled on other grounds, Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923 (2016); Beatrice Foods Co. v. New England Printing & Lithographing Co., 923 F.2d 1576, 1578-80 (Fed. Cir. 1991). The Federal Circuit in Seagate held that the willfulness inquiry had both an objective component and a subjective component. See Powell v. Home Depot U.S.A., Inc., 663 F.3d 1221, 1236-37 (Fed. Cir. 2011). The Supreme Court in Halo rejected Seagate's two-part

In this case, the evidence was not sufficient to support a finding that UroPep had met its burden of showing that Lilly's conduct was "egregious" or "malicious" behavior that is "characteristic of a pirate." The evidence on which UroPep relied at trial to support its claim of willfulness was Lilly's failure to respond to UroPep's single, one-page letter of October 9, 2014, notifying Lilly about the '124 patent and stating that the sale of Cialis for BPH "appears to require a license of the '124 patent." In addition, UroPep argued that the infringement case against Lilly was strong, given the simplicity and breadth of the '124 patent. See Dkt. No. 342, at 210, 212-13 (Trial Tr. 469, 471-72); Dkt. No. 344, at 369, 373 (Trial Tr. 1377, 1381).

On the other hand, UroPep's letter was a barebones assertion of infringement. Nothing in the notification letter set out the strength of UroPep's infringement case or addressed the issue of validity. Nor was there evidence of any follow-up communications from UroPep after the October 9, 2014, letter. Meanwhile, during the pretrial proceedings and at trial Lilly raised substantial arguments as to the validity of the '124 patent, from which it could be inferred that Lilly reasonably concluded that even if the patent covered the use of tadalafil to treat BPH, Lilly's continued marketing of Cialis did not infringe a valid patent.

Perhaps the strongest point in UroPep's favor on the willfulness issue is that Lilly did not offer any explanation for its failure to respond to UroPep's October 9, 2014, notification letter. Rather than offering an explanation for its silence in response to the letter, such as whether its silence was the product of oversight or a considered decision based on analysis of the patent, Lilly chose to rest mainly on the fact that UroPep bore the burden of proof on willfulness and the

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test, holding that the objective component is not part of the section 284 inquiry, and that the "subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless." Halo, 136 S. Ct. at 1932-33. The Court reiterated, however, that the ultimate decision whether to award enhanced damages is for the court. Id. at 1933-34.

argument that UroPep failed to satisfy that burden. See Dkt. No. 344, at 370, 373 (Trial Tr. 1378, 1381). Lilly did not, for example, offer an advice of counsel defense. On the other hand, the Patent Act expressly provides that the "failure of an infringer to obtain the advice of counsel with respect to any allegedly infringed patent, or the failure of the infringer to present such advice to the court or jury, may not be used to prove that the accused infringer willfully infringed the patent . . . ." 35 U.S.C. § 297. Therefore, the Court may not take into account Lilly's failure to offer evidence that it consulted counsel regarding the '124 patent after receiving notification of the patent in October 2014.

In addition, Lilly pointed out that the single communication sent by UroPep prior to the filing of the complaint was sent after Lilly had already been marketing Cialis for the treatment of BPH for almost three years, so it was not surprising that Lilly would not have lightly concluded that its entire "Cialis for BPH" marketing program was at risk because of the '124 patent. See Dkt. No. 344, at 370-71 (Trial Tr. 1378-79). This is not a case in which the defendant copied patented technology; Lilly clearly developed the use of Cialis for BPH without consulting the '124 patent, which is a factor that cuts against a finding of willfulness and an award of enhanced damages.

After weighing the evidence at trial, the Court concluded that there was no direct evidence of willfulness (or lack of willfulness). All that the parties on either side could point to was circumstantial evidence. In the end, the Court concluded that the circumstantial evidence relied on by UroPep was not strong enough to justify submitting the issue of willfulness to the jury, particularly in light of the fact that UroPep bore the burden of proof on the issue of willfulness and was required to show that Lilly's conduct was sufficiently extreme to qualify as "egregious" under the Supreme Court's articulation.

Contrary to the thrust of UroPep's argument at trial, a finding of willfulness is not required simply because the infringer knew about the patent at issue. As Justice Breyer noted in his concurring opinion in Halo, 136 S. Ct. at 1936 (Breyer, J., concurring), "a court is not required to award enhanced damages "simply because the evidence shows that the infringer knew about the patent *and nothing more*. . . . It is 'circumstanc[e]' that transforms simple knowledge into such egregious behavior, and that makes all the difference." In this case, there was no evidence in addition to the evidence of Lilly's pre-suit knowledge of the patent that showed that Lilly's infringement was "egregious," "deliberate," "wanton," or otherwise characteristic of the type of infringement that warrants the "punitive" sanction of enhanced damages. See Continental Circuits LLC v. Intel Corp., No. CV 16-2026, 2017 WL 679116, at *11 (D. Ariz. Feb. 21, 2017) (after Halo, "awareness of the patent and continued use of the infringing product despite 'an objectively high likelihood' of infringement or 'reckless disregard' of that risk no longer compel a finding of willfulness"); Vehicle IP, LLC v. AT&T Mobility LLC, C.A. No. 09-1007, 2016 WL 7647522, at * 8 (D. Del. Dec. 30, 2016) ("[A] party's pre-suit knowledge of a patent is not sufficient, by itself, to find 'willful misconduct' of the type that may warrant an award of enhanced damages."); Greatbatch Ltd. v. AVX Corp., C.A. No. 13-723, 2016 WL 7217625, at *3 (D. Del. Dec. 13, 2016) ("The key inquiry in this case is whether there is evidence in addition to AVX's pre-suit knowledge of the patents that could show that AVX's infringement was 'egregious,' 'deliberate,' 'wanton,' or otherwise characteristic of the type of infringement that warrants the Court in exercising its discretion to impose the 'punitive' sanction of enhanced damages."); CG Tech. Dev., LLC v. Big Fish Games, Inc., 2:16-cv-587, 2016 WL 4521682, at I14 (D. Nev. Aug. 29, 2016) (plaintiff failed to state a claim for willful infringement under Halo because the complaint "fail[ed] to allege any facts suggesting that Defendant's

conduct is 'egregious . . . beyond typical infringement.") (quoting Halo, 136 S. Ct. at 1935); Dorman Prods., Inc. v. Paccar, Inc., 201 F. Supp. 3d 663, 681 (E.D. Pa. 2016) ("Halo requires more than simple awareness of the patent and awareness of infringement.").

Finally, the Court notes that the question whether the issue of willfulness should have been submitted to the jury is rendered largely moot by the fact that the decision whether to enhance damages on a finding of willfulness is for the Court. Halo, 136 S. Ct. at 1934. And as the Supreme Court explained in Halo, there is no requirement that enhanced damages must be awarded, even following a finding of egregious misconduct. Id. at 1933.

The Court in this case explained at trial that it would not have enhanced damages even if the jury had found Lilly's infringement to be willful. See Read Corp. v. Portec, Inc., 970 F.3d 816, 826 (Fed. Cir. 1992) (a finding of willful infringement "does not mandate that damages be enhanced"; identifying a number of factors that bear on the district court's enhancement decision); Brigham & Women's Hospital, Inc. v. Perrigo Co., Civil Action No. 13-11640, 2017 WL 1496916, at *5 (D. Mass. Apr. 24, 2017).

In the Read case, the Federal Circuit set out a number of factors that are pertinent to the decision whether to award enhanced damages under section 284. The Court reviewed those factors and concluded that several of the most important of them cut against an enhanced damages award in this case. In particular, the Court concluded that there was no evidence of deliberate copying; there was no improper behavior by the infringer in its capacity as a party to the litigation; Lilly made reasonable arguments with respect to certain of the issues of invalidity; there was no showing that Lilly had a motivation (or sought) to harm UroPep; and there was no evidence that Lilly attempted to conceal any misconduct. Read, 970 F.2d at 827-28. The Court

therefore would have exercised its discretion to deny an award of enhanced damages even if the jury had returned a verdict finding that Lilly's infringement was willful.

II. Enablement of Both Prophylaxis and Treatment

Claim 1 of the '124 patent recites in part "A method for prophylaxis or treatment of benign prostatic hyperplasia . . . ." '124 patent, col. 8, ll. 18-19. Lilly requested an instruction that UroPep was required to enable both prophylaxis and treatment, and that it would not be sufficient to enable treatment alone.[2]

Lilly is correct that in the case of a claim that recites a method for performing two objectives stated in the alternative, the enablement requirement in of 35 U.S.C. § 112, ¶ 1 requires that the specification enable the performance of each of the alternative objectives. See Sitrick v. Dreamworks, LLC, 516 F.3d 993, 995 (Fed. Cir. 2008); Automotive Techs. Int'l, Inc. v. BMW of N. Am, Inc., 507 F.3d 1274, 1277 (Fed. Cir. 2007); Liebel-Flarsheim Co. v. Medrad, Inc., 481 F.3d 1371, 1378-79 (Fed. Cir. 2007). In this case, however, Lilly's request for an instruction to that effect was properly denied, for two reasons.

First, as the Court noted following the charge conference, there was very little discussion at trial of the issue of prophylaxis; the focus of the evidence at trial, including the evidence

[2] There was some confusion at trial about whether Lilly's objection on this ground was directed to the Court's instruction on written description or to the Court's instruction on enablement. At the charge conference, Lilly objected to the language in the Court's instruction on written description. Dkt. No. 344, at 363-64 (Trial Tr. 1371-72). For that reason, the Court at that time understood Lilly to be making a written description argument, Dkt. No. 344, at 363 (Trial Tr. 1371); Dkt. No. 346, at 129 (Trial Tr. 1396). In its brief subsequently submitted in support of its argument on that point, however, Lilly presented its argument as an enablement argument. Dkt. No. 325, at 5-6. In light of the position formally taken by Lilly in its brief, the Court will treat Lilly's objection as directed to the Court's instruction on enablement. But in any event, the reasons for rejecting Lilly's requested instruction as to enablement are also applicable to Lilly's written description defense.

supporting Lilly's invalidity defense, was on treatment. To the extent that prophylaxis was discussed at all, it was discussed in the context of treatment.

In support of its proposed instruction, Lilly pointed out that one of Lilly's expert witnesses, Dr. Claus Roehrborn, testified that a person of ordinary skill in the art would not be able to determine the amount of a PDE5 inhibitor that would be required for the effective treatment of BPH. He was then asked, "Did the ['124] patent provide any information that you can determine or a person of ordinary skill in the art can regarding the effective amount that would be given to have prophylaxis of BPH?" He responded, "No it does not." Dkt. No. 342, at 286 (Trial Tr. 545). There is very little other evidence regarding the enablement or written description issues as they pertain to prophylaxis. Instead, throughout the trial, and in other portions of Dr. Roehrborn's testimony, prophylaxis and treatment were treated together as a single process. See id. at 287-88 (Trial Tr. 546-47) ("And when it comes to looking at the issue of prevention or progression, it is even more complicated because it is highly unpredictable of a thousand men, how many of them will progress and how many will the symptoms get worse. . . . So if you want to show an effect on preventing or progression, it would take a long, long time."); id. at 288 (Trial Tr. 547) ("it is very difficult to define an effective amount given that the claim involves prevention, prophylaxis, and treatment").

Second, and relatedly, the terms "treatment" and "prophylaxis," as used in the '124 patent, do not describe distinct processes. In its initial claim construction order in this case, the Court acknowledged that, as UroPep's expert explained, there was "no clear distinction [drawn] between prophylaxis and treatment for BPH." Dkt. No. 131, at 9. The Court stated that "a course of medication designed to deal with the condition could be regarded as either prophylaxis or treatment, depending on the physician's judgment as to whether the patient has BPH or merely

has risk factors for BPH or has at least one of the symptoms of BPH." Id. The Court noted that the uncertainty as to whether therapy should be considered treatment or prophylaxis might create a categorical difficulty, but "because the patent claims at issue in this case cover both prophylaxis and treatment, the overlapping nature of the two terms is not problematical." Id. at 9-10. Given that the terms "prophylaxis" and "treatment" are largely overlapping and that Lilly made no effort at trial to suggest that they required significantly different analysis under the written description or enablement requirements, there was no need to instruct the jury that it needed to conduct a separate invalidity analysis for each term. Any such instruction would simply have been confusing to the jury in light of the manner in which the case was tried.

Third, the instruction that Lilly sought was directed to the principle that section 112, paragraph 6, requires that the specification enable the full scope of the claim, not just a single embodiment or group of embodiments. See Liebel-Flarsheim, 481 F.3d 1378-79. The Court in fact gave such an instruction, directing the jury that "[t]o be valid, a patent must contain a description of the manner of making and using the invention that would enable a persons of skill in the art to make and use the full scope of the invention without undue experimentation. Lilly contends that claim 1 of the '124 patent is invalid because the patent does not contain a sufficiently full and clear description of how to make and use the full scope of the invention. In order to invalidate the '124 patent for lack of enablement, Lilly must prove by clear and convincing evidence that the '124 patent would not have enabled such a person to make or use the full scope of the invention." Dkt. No. 346, at 43 (Trial Tr. 1428); see also id. at 44 (Trial Tr.

1429).[3] The principle to which Lilly's purported instruction was directed was thus already incorporated in the Court's charge, although not with the specificity that Lilly requested.[4]

III. Written Description of a Negative Limitation

As part of the Court's instructions on the written description requirement, Lilly urged the Court to include an instruction regarding the "negative limitation" in claim 1 of the '124 patent—specifically, the limitation in the claim that excludes seven identified compounds from the class of PDE5 inhibitors covered by the claim. Lilly proposed an instruction that negative claim limitations "are adequately supported when the specification describes a reason to exclude the matter. The reason can be shown, for example, by properly describing alternative features of the patented invention." Dkt. No. 317-1, at 25. Based on the decisions in Inphi Corp. v. Netlist, Inc., 805 F.3d 1350 (Fed. Cir. 2015), and In re Johnson, 558 F.2d 1008 (C.C.P.A. 1977), the Court declined Lilly's request to instruct the jury in that manner.

In the Johnson case, the Court of Customs and Patent Appeals dealt with a situation similar to the '124 patent. The patent in suit in that case excluded two specific compounds from the claimed genus of compounds. The excluded compounds were omitted from the claims in order "to avoid having [the claims] read on a lost interference count." 558 F.2d at 1019. The court held that omitting the two species compounds from the genus recited in the claims was

[3] At Lilly's request, the Court gave a similar instruction with regard to the written description requirement: "The written description requirement is satisfied if a person of ordinary skill reading the patent would have recognized that it describes the full scope of the invention that is claimed in the patent and that the inventor actually possessed the full scope of the invention as of the filing date of the patent." Dkt. No. 346, at 41 (Trial Tr. 1426); see also id. at 42 (Trial Tr. 1427); Dkt. No. 344, at 357 (Trial Tr. 1365) (Lilly's counsel argued that, as to written description, "whenever we talk about the invention, we need to talk about the full scope of the invention.").

[4] Nothing barred Lilly from making that specific argument to the jury in its closing, but Lilly chose not to do so.

permissible and did not create a written description problem. In tersely dispatching the written description argument, the court wrote the following:

> The notion that one who fully discloses, and teaches those skilled in the art how to make and use, a genus and numerous species therewithin, has somehow failed to disclose, and teach those skilled in the art how to make and use, that genus minus two of those species, and has thus failed to satisfy the requirements of § 112, first paragraph, appears to result from a hypertechnical application of legalistic prose relating to that provision of the statute.

558 F.2d at 1019.

The same principle applies here. The list of compounds that are excluded from claim 1 of the '124 patent derived from a parent patent, U.S. Patent No. 8,106,061 ("the '061 patent"). The specification explains that the '124 patent is a continuation of the '061 patent, and the '061 patent claims each of the compounds that were excluded from the '124 patent, except for sildenafil. The '061 patent and the '124 patent are clearly complementary patents. They share the same title, the same abstract, and the same common specification. It is clear that the '124 patent claims the genus of PDE5 inhibitors, while excluding from the claim the species previously patented in the '061 patent, plus sildenafil, which was also previously patented. The reason for the negative limitation is clear on the face of the two patents—the drafters of the '124 patent sought to claim the genus of PDE5 inhibitors, while excluding the particular compounds that had previously been patented. That approach is consistent with the approach taken, and approved, in the Johnson case and does not violate the written description requirement.

The rationale of Johnson was reaffirmed by the Federal Circuit recently in Inphi. The Inphi case involved a negative limitation that the appellant argued was not adequately described because the specification did not provide a "reason to exclude" the excluded embodiments. See Santarus, Inc. v. Par Pharm., Inc., 694 F.3d 1344 (Fed. Cir. 2012). The appellant in Inphi initially argued that the specification was required to "identify the comparative advantage of the

material remaining after any narrowing amendment," but then backed away from that argument. 805 F.3d at 1355. As the court explained, the remaining question in the case was "whether properly describing alternative features—without articulating advantages or disadvantages of each feature—can constitute a 'reason to exclude' under the standard articulated in Santarus." Id. The court held that it can. Id.

The court in Inphi explained that "claims may state the exclusion of alternatives," and that "if alternative elements are positively recited in the specification, they may be explicitly excluded in the claims." Id. Quoting the Johnson case, the Inphi court added: "It is for the inventor to decide what bounds of protection he will seek." Id. It is enough, the court noted, that the specification "properly describ[e] alternative features of the patented invention" to indicate that the patentees "are merely excising the inventions of another, to which they are not entitled." Id. Because there was substantial evidence that the appellee in Inphi "possessed the negative claim limitation as of the filing date," the court held that the written description requirement had been satisfied with respect to the negative claim limitation. See Santarus, 694 F.3d at 1351 (The exclusion of sucralfate from the claims "narrowed the claims, as the patentee is entitled to do. The Manual of Patent Examining Procedure explains that claims may state the exclusion of alternatives. See MPEP § 2173.05(i) ('If alternative elements are positively needed in the specification, they may be explicitly excluded in the claims.')").

That analysis applies directly here. The '124 patent, viewed in light of the cited '061 patent, makes clear that the inventors "decide[d] what bounds of protection" they would seek. Inphi, 805 F.3d at 1356. Because six of the excluded compounds had been claimed in the '061 patent and the seventh—sildenafil—was separately patented, it is plain that the '124 patent inventors were "merely excising the invention of another, to which they are not entitled." Id.

In light of these principles, Lilly's proposed instruction, which required that the specification "disclose[] a reason to exclude" the subject matter of the negative claim limitation, would have been misleading to the jury. The specification of the '124 patent, read in light of the '061 patent, provided an adequate description of the negative claim limitation; no further "reason to exclude" was required, and an instruction requiring the jury to find such an explanation in the specification would have been erroneous.

IV. Failure to Instruct on the Discovery of a Phenomenon of Nature

During the charge conference, Lilly requested that the Court instruct the jury that "the discovery of a phenomenon of nature cannot be the basis for patent protection." Dkt. No. 325, at 4.[5] In support of that request, Lilly cited 35 U.S.C. § 101 and two cases applying section 101, Association for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107 (2013), and Mayo Collaborative Services v. Prometheus Laboratories, Inc., 132 S. Ct. 1289 (2012). The Court declined to give that instruction, noting that Lilly had not raised section 101 as a defense or counterclaim in this case.

For the Court to in effect insert a section 101 defense into the case at the instruction stage would be unwarranted. Lilly did not plead section 101 as a defense in its answer, and nothing in the pretrial proceedings or the presentation of the case to the jury laid the basis for a section 101 defense. An instruction essentially directed to such a defense would have been confusing to the jury and unfairly prejudicial to UroPep.

[5] Prior to the charge conference, Lilly submitted some additional proposed instructions, including one that explained that a person who discovered that fires require oxygen would not be entitled to a patent to the process of making a fire by lighting a flame in the presence of oxygen. Dkt. No. 317-1, at 14. That proposed instruction, however, related to the role of inherency in the law of anticipation, not to the principle that a natural phenomenon cannot be patented.

Moreover, the instruction requested by Lilly would have been misleading. While it is true that a patent cannot be obtained on a natural law or phenomenon, it would be incorrect to instruct the jury that "the discovery of a phenomenon of nature cannot be the basis for patent protection." The discovery of a natural law or a phenomenon of nature can indeed serve as the "basis" for patent protection, as long as the phenomenon of nature is applied to achieve a useful result. As the Supreme Court has explained, "a process is not unpatentable simply because it contains a law of nature or a mathematical algorithm. It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." Diamond v. Diehr, 450 U.S. 175, 187 (1981) (quoting Parker v. Flook, 437 U.S. 584, 590 (1978)).

At the charge conference, Lilly proposed an instruction that "the simple discovery that PDE5 is in the prostate or that PDE5 plays a functional role in the prostate is not part of the analysis for this claim." Dkt. No. 344, at 353 (Trial Tr. 1361). That instruction, if given, would have been erroneous, as it is perfectly legitimate for the discovery of the functional role of PDE5 to be "part of the analysis" of patentability, particularly when that discovery is applied to the administration of a PDE5 inhibitor in an effective amount to treat BPH—a prostatic disease. Diehr and other section 101 cases stand for the proposition that, in addition to reciting a law of nature, a patent must apply that law of nature to a problem in a way that reflects that the inventor has "invent[ed] or discover[ed]" a "new and useful process." 35 U.S.C. § 101. Because Lilly did not propose an instruction that would have made clear to the jury the distinction drawn by the Supreme Court in Diamond v. Diehr, it would have been improper for the Court to instruct the jury in the manner Lilly suggested.

V. Prejudgment and Postjudgment Interest

Prior to entering judgment in this case, the Court asked the parties to brief the issues of prejudgment and postjudgment interest. The parties submitted briefs on those issues on May 17, 2017, see Dkt. Nos. 352, 354, and the Court is today separately entering judgment in the case, incorporating its rulings as to prejudgment and postjudgment interest. The reasons for the Court's rulings on those issues is set out below.

Lilly argues that UroPep is not entitled to any prejudgment interest or, in the alternative, that the award of prejudgment interest should be limited to a rate no greater than the prime rate, compounded annually. UroPep argues that prejudgment interest should be calculated at 7 percent, compounded quarterly, on the ground that a small entity such as UroPep would have had to pay that amount as the cost of capital. The effect of the difference in the two rates is significant. Under Lilly's approach, using the prime rate, compounded annually, the total amount of prejudgment interest would be $856,076. Under UroPep's approach, using a 7 percent interest rate, compounded quarterly, the total amount of prejudgment interest up until May 17, 2017, would be $1,843,100.

The Patent Act specifically authorizes the court to award damages to the prevailing claimant, "together with interest and costs as fixed by the court." 35 U.S.C. § 284. While the Supreme Court has construed that language to leave the district court "some discretion in awarding prejudgment interest . . . or perhaps even [to] deny it altogether," the Court has stated that prejudgment interest should be awarded "absent some justification for withholding such an award." Gen. Motors Corp. v. Devex Corp., 461 U.S. 648, 656-57 (1983). One such justification noted by the Supreme Court is "where the patent owner has been responsible for undue delay in prosecuting the lawsuit." Id. at 657.

In suggesting that UroPep is not entitled to any award of prejudgment interest, Lilly focuses on UroPep's alleged undue delay in prosecuting this lawsuit. Lilly does not base its argument on the delay of less than a year between the issuance of the patent and the filing of the complaint, which would not be sufficient in any event to justify the denial of prejudgment interest. See Fractus, S.A. v. Samsung Elecs. Co., 876 F. Supp. 2d 802, 855 (E.D. Tex. 2012) (no undue delay found when patentee filed lawsuit within a year after two of the four patents in suit issued). Instead, Lilly points to the delay in the prosecution of the '124 patent. The original application that ultimately led to the '124 patent was filed in 1997, and the patent did not issue until 2014. Lilly argues that the delay in prosecution should result in the denial of an award of prejudgment interest.

The Court rejects Lilly's argument regarding prosecution delay. The delay in prosecution did not prejudice Lilly in any meaningful way. To the contrary, the delay meant that Lilly enjoyed several years of sales of Cialis for the treatment of BPH without being subject to royalties or damages on account of the '124 patent. As for Lilly's claim that it invested substantial sums in marketing and developing Cialis for the treatment of BPH prior to the issuance of the '124 patent, it is implausible to suggest that Lilly would have behaved any differently if the '124 patent had issued earlier, particularly in light of Lilly's decision not to respond to the notification of the '124 patent after the patent issued. Thus, the Court concludes that UroPep is entitled to prejudgment interest. The question is, in what amount.

The rate of prejudgment interest and whether it should be compounded "are matters left largely to the discretion of the district court." Bio-Rad Labs., Inc. v. Nicolet Instrument Corp., 807 F.2d 964, 969 (Fed. Cir. 1986). As UroPep acknowledges, the "standard practice" in the Eastern District of Texas is to award prejudgment interest at the prime rate, compounded

quarterly. See Imperium IP Holdings (Cayman), Ltd. v. Samsung Elec. Co., Civil Action No. 4:14-cv-371, 2017 WL 1716589, at *4 (E.D. Tex. Apr. 17, 2017); Georgetown Rail Equip. Co. v. Holland L.P., No. 6:13-cv-366, 2016 WL 3346084, at *10 (E.D. Tex. June 16, 2016); Ericsson Inc. v. D-Link Sys., Inc., No. 6:10-cv-473, 2013 WL 4046225, at *20 (E.D. Tex. Aug. 6, 2013); Internet Machines LLC v. Alienware Corp., Civil Action No. 6:10-cv-23, 2013 WL 4056282, at *22 (E.D. Tex. June 19, 2013); VirnetX Inc. v. Apple, Inc., 925 F. Supp. 2d 816, 843 (E.D. Tex. 2013); SSL Servs., LLC v. Citrix Sys., Inc., No. 2:08-cv-158, 2012 WL 4092449, at *7 (E.D. Tex. Sept. 17, 2012); Soverain Software LLC v. J.C. Penney Corp., 899 F. Supp. 2d 574, 587 (E.D. Tex. 2012); Fractus, 876 F. Supp. 2d at 856; Clear with Computers, LLC v. Hyundai Motor Am., Inc., No. 6:09-cv-479, 2012 WL 8144915, at *8 (E.D. Tex. Jan. 9, 2012); Tele-Cons v. Gen. Elec. Co., No. 6:10-cv-451, at 2 (E.D. Tex. Sept. 29, 2011) (slip op.); Glob. Ground Automation v. Groundrez, No. 6:08-cv-374, 2011 WL 13098293, at *6 (E.D. Tex. June 29, 2011); ACQIS LLC v. IBM Corp., No. 6:09-cv-148, at 1 (E.D. Tex. June 8, 2011) (slip op.); Tyco Healthcare Grp. v. Applied Med. Res. Corp., No. 9:09-cv-176, 2010 WL 11469881, at *5 (E.D. Tex. May 17, 2010).

Notwithstanding that authority, UroPep argues that the prime rate should not be used in this case because it is the lowest interest rate at which money can be borrowed commercially, and it is therefore not a rate that would be accessible to a small German partnership such as UroPep. For that reason, UroPep contends that using the prime rate to calculate prejudgment interest would not be sufficient to make UroPep whole.

The problem with UroPep's argument is that it views the loss of the use of the money that is now being awarded as damages as if UroPep had been required to borrow funds during the damages period on the commercial market at a rate of approximately 7 percent. UroPep,

however, offers no evidence that it had to borrow funds at all, or indeed had any need or desire to borrow funds, and therefore that the increased amount is necessary to fully compensate UroPep for its loss.

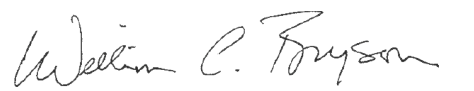
UroPep relies on Muniauction, Inc. v. Thomson Corp., 502 F. Supp. 2d 477, 484-85 (W.D. Pa. 2007), to support its claim for interest at the 7 percent rate that it contends it would have had to pay to borrow funds during the prejudgment interest period. That case, however, is quite different from this one. In Muniauction, the district court noted that the plaintiff "had to borrow money in order to account for [the] financial shortfall," and that the plaintiff was required to pay interest at the prime rate, plus one percent, which is the rate that the court awarded in prejudgment interest. In this case, UroPep has offered no evidence that it had to borrow money to finance any of its operations; it is therefore more reasonable to view its loss as the loss of an investment opportunity.

The more appropriate way to view the effect of the denial of royalty payments to UroPep during the infringement period is to treat Lilly's nonpayment of royalties during that period as a compulsory loan from UroPep. Had Lilly paid UroPep the $20,000,000 that the jury regarded as the appropriate royalty and UroPep had placed that money in risk-free investments, UroPep would have earned much less than the prime rate on the funds. However, Lilly's infringing conduct deprived UroPep of the choice of how to use that money. Instead, Lilly effectively appropriated the funds for itself and was able to make choices as to how it should be used. Because Lilly effectively compelled UroPep to allow it to keep the money that otherwise would have been used to make royalty payments, it is reasonable to treat that money as a compelled loan from UroPep to Lilly and to value the loan at the rate that Lilly would have been required to pay on the open market for the use of that money.

There is no reason to doubt that if Lilly had sought to borrow funds on the open market, it would have been able to do so at the prime rate. Therefore, a competitive loan from UroPep would have been priced at the prime rate. For that reason, the Court concludes that fair compensation to UroPep for the loss of the use of the funds that Lilly would have paid as a royalty is the prime rate, compounded quarterly, as calculated by UroPep's damages expert Dr. Christopher Vellturo in his declaration attached to UroPep's brief. That amount, up to the May 17, 2017, date that UroPep filed its brief on prejudgment interest is $927,800. The judgment will be filed today, one day later, on May 18, 2017. The Court will therefore add prejudgment interest for that one day. The prejudgment interest for that day will be calculated according to the formula proposed by Dr. Vellturo, and that amount will be added to the $927,800 in interest through May 17, 2017, to calculate the total amount of the prejudgment interest owed by Lilly.

Postjudgment interest is governed by a federal statute, 28 U.S.C. § 1961. The parties agree that postjudgment interest under the statutory formula is "the weekly average 1-year constant maturity Treasury yield . . . for the calendar week preceding the date of the judgment." Interest is calculated from the date of entry of the judgment, is computed daily to the date of payment, and is compounded annually and otherwise follows the requirements of section 1961. Id. The postjudgment interest rate is applied to the total amount of the judgment for damages plus prejudgment interest.

SIGNED this 18th day of May, 2017.



WILLIAM C. BRYSON
UNITED STATES CIRCUIT JUDGE